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Sport Tourism:
Contributions for an architectural design prototype for waves sports support

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Resumo

O desporto e o turismo evoluíram através de processos dinâmicos, adaptativos e transformacionais resultantes da melhoria da qualidade de vida e da conquista do tempo livre das populações para o qual contribuiu a Revolução Industrial e a consequente emergência da sociedade do lazer e consumo. As suas práticas assumem interesse económico indiscutível na perspetiva do desenvolvimento territorial, fomentando desenvolvimento humano, partilhando objetivos culturais e estilos de vida saudáveis, bem como promovendo a paz entre as nações e a qualidade de vida das pessoas, fonte de inspiração para converter sonhos em realidade.

Nesse sentido, os desportos de ondas têm sofrido alterações significativas ao longo da sua existência, começando como simples prática desportiva informal, têm evoluído a nível competitivo e tem-se tornado num modo de vida que envolve em si, legiões de adeptos que cruzam continentes, praticantes ou espectadores, como se de uma peregrinação se trata-se. Os desportos de ondas são um segmento importante a estudar, pois permitirá compreender o fenómeno, perceber de que forma consegue gerar um crescimento sustentado, potenciador de novas oportunidades para a economia do mar e desenvolvimento de territórios que potenciam o seu acolhimento e prática.

O objetivo do estudo prende-se com a apresentação de um protótipo de construção (ADP-WAVESPORTS) assente em princípios de sustentabilidade e inovação, que respeite os interesses e expectativas dos adeptos dos desportos de ondas, na sua dupla dimensão de praticantes e espectadores. ADP-WAVESPORTS apresenta uma arquitetura inovadora sendo ainda um protótipo adaptado a diferentes contextos e práticas dos desportos de ondas.

Palavras-chave: Protótipo de construção, desportos de ondas, turismo desportivo.

Abstract

Sport and tourism evolved through dynamic, adaptive and transformational processes resulting from improved quality of life and leisure time. It is a conquest of the populations to which contributed the Industrial Revolution and the consequent emergence of leisure and consumer society. Its practices have undeniable economic interest from a territorial development point of view. They foster human development through sharing cultural goals and healthy lifestyles, as well as promoting peace among nations and quality of life, source of inspiration to make dreams come true.

In this context, waves sports undergone significant changes, from a simple informal sport to a competitive level. It has also become a way of life that draws legions of fans across continents, practitioners or spectators, as if a peligrination. The waves sports are an important segment to study because it may generate sustained growth and new opportunities for the sea economy and territorial development.

This study aims to elucidate the design prototype that serves the needs of the waves sports (ADP-WAVESPORTS), based on the principles of sustainability and innovation that respects the interests and expectations of the supporters of waves sports in two dimensions, practitioners and spectators.

ADP-WAVESPORTS can be assumed as an innovative architecture prototype adaptable to different demands and contexts of practice around the specific dynamics wave's sports.

Key concepts: Prototype architectural design, wave sports, sport tourism.

Introduction

Sport and tourism evolved through dynamic, adaptive and transformational processes resulting from improved quality of life and leisure time. It is a conquest of the populations to which contributed the Industrial Revolution and the emergence of leisure and consumer society. Its practices have undeniable economic interest from a land development point of view. They foster human development through sharing cultural goals and healthy lifestyles, as well as promoting peace among nations and quality of life, source of inspiration to make dreams come true.

In this context, surf has undergone significant changes, from a simple informal sport to a competitive level. It has also become a way of life that draws legions of fans across continents, practitioners or spectators, as if in pilgrimage.

According to the International Surfing Association there are ten waves sports, namely surf, bodyboard, longboard, kneeboard, tandem, skimboarding, bodysurfing, tow-in, stand up paddle surfing and stand up paddle racing. Surfing and bodyboarding have the highest number of practitioners worldwide.

In the thought of Moreira (2009), surf is a sport based on sliding with a board on wave walls towards the beach, depending mainly on sea conditions, whose motor expression and art in implementation materializes the level of elaborate maneuvers during the slide.

According to Young (2008), a possible origin of the surf occurred in Oceania and was developed in Hawaii, where part of the population moved into long wooden boards to practice religious rites and ceremonies. Access to boards by the population and its generalization took place later. The surf was practiced in almost all the islands of Polynesia and became important to its people (Kampion & Brown, 1998). To get an idea of its importance, when waves appeared in an organized manner, frequency and defined direction (swell), which was constant and frequent in Hawaii, people would interrupt their daily activity to practice surf.

In the path of Conway (1988) and Aughton (2002), surf came to Europe with the English explorer James Cook in 1778. Upon his arrival to Hawaii he became the first westerner to practice surf. In the early twentieth century, surf developed into an organized sport, mainly near Waikiki Beach where hawaiians surfed for the simple pleasure of gliding through the waves towards the beach.

According to the Portuguese Surfing Federation (2006), the booming

of surf practice in Europe occurred in 1937 when the english Jimmy Dix who reintroduced the sport long after the first contact made by James Cook. As a result of this growth, in the 1960's starts the cinema exploration of surf in Hollywood, as a social phenomenon of interest and growing prestige, which in turn leveraged the knowledge of surf worldwide (Kampion & Brown, 2003).

In spite of the importance of historical data regarding the origin of the surf, we will focus in 1964 as a startup milestone because of the first World Cup of Surfing held at Manly Beach Sydney (Warshaw, 2010). During this period, the first body responsible for organizing the World Championships, the International Surfing Federation (ISF) was founded. In 1976 it changed its name to International Surfing Association (ISA) (ISA, 2013a). Recognized by the International Olympic Committee, ISA is currently a worldwide organization that represents and develops the surf and other kinds of waves sports around the world (ISA, 2013b).

In the late 1960s, environmental awareness emerged within the surf community, leading in 1970 to the "Save Our Surf" movement and later in 1984 the Surfrider Foundation (Warshaw, 2010). Although the emergence of these entities was random, they currently have a leading role in the preservation of beaches, calling for environmental awareness within the global surfing community, a logic of evolved ecological consciousness (Sanders, 2013).

According to Warshaw (2010), with the new century and via training and communication technologies, surf gains visibility and credibility, asserting itself worldwide as a way of life that attracts crowds of several age groups. With the internet arose the possibility of promoting and consulting information about surf worldwide, through filming cameras located on the beaches, videos of athletes in action and championships in direct service through live web streaming (Warshaw, 2010). World surf became available with a single click, making it very well known and, consequently, widespread in the world, via images of great scenic richness, challenging and breathtaking paradise places, likely to be visited.

In Portugal, surf becomes organized in 1989, the year the Portuguese Surfing Federation (FPS, 2015) was established, a leading management structure responsible for organizing competitive surf, bodyboard, longboard, kneeboard, skimboarding and skateboarding. The Federation keeps on going the following activities of the various modalities of surf: surfing, bodyboarding, bodysurfing, longboard,

skimboard, skate, kneeboard, tow-in / out and stand up paddle (SUP). In 2014 there was a turning trend of stagnation and decline in the number of federated athletes. In 2014 there was an increase of federated 12.8% compared to 2013. Virtually all types recorded increases: surf, + 8.4%; bodyboard, + 16%; longboard, + 23.1%; skimboarding, + 52.3% and SUP, + 200%.

It is essential in the genesis of ADP-WAVESPORTS creation to keep the composite relationship with the water element, and the main cell been based on symbolic inspiration design archetype used in water in its solid state, as presented in Figure 1, assuming a hexagonal shape.

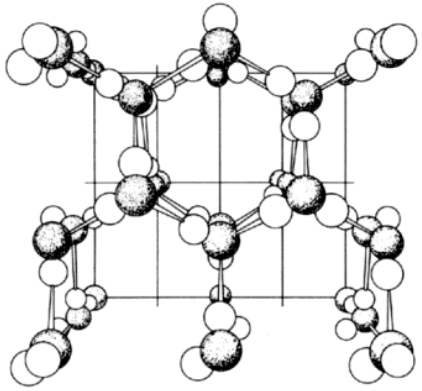

Figure 1 – Water molecular structure in the solid state, is assuming a hexagonal geometry (Kramer & Boyer, 1995, Fig. 2.7, p. 24).

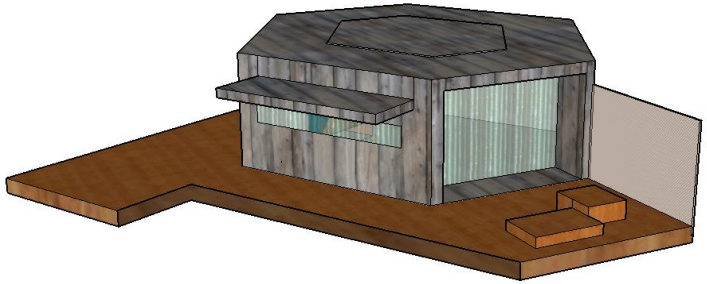

Figure 2 – Basic cell ADP-WAVESPORTS

The wave sports sector, because of its potential economic, social and cultural impact in modern times, is globally under great pressure. The purchasing behavior of more demanding consumers willing to spend higher sums for "differentiated products with top features and quality", require the dedication of everyone and the application of techniques and paradigms embedded in the environment, ecologically sustainable, with minimized costs and directly targeted to the needs of current sports.

Departing assumptions that may lead to the creation of a building prototype for wave sports ADP-WAVESPORTS, highlight the prin-

ciples of sustainability and innovation that meet the needs, interests and expectations of fans both practitioners and spectators. Regarding size and scale, it should fit the physical environment in which it operates, comply with the legislation in force and be applicable to the purpose it was created for (form vs. function).

Like the particle of water in its solid state (hexagonal), other factors strengthened the shape concept under study, such as the hexagonal shape of honeycomb, which is understood as a masterpiece of temperature savings. Charles Darwin, author of the theory of evolution, surrendered to the hives, considered absolutely perfect and an example of manpower savings. The embryo shaping of ADP-WAVESPORTS is hexagonal because it is mathematically natural, linear, and it responds and adapts easily to any physical environment. Moreover, it is the geometric shape that better meets a "cell" composite evolution, an essential concept of ADP-WAVESPORTS for macro-scale developments.

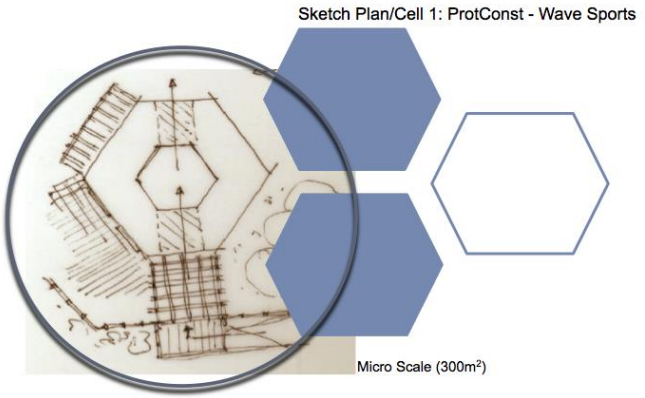

Figure 3 – Sketch plan/ ADP-WAVESPORTS

The first cell of the prototype building is dedicated to serving the needs of a School Sports Waves, based on the basic concept hexagonal cell, space is assumed as "School", whose main function is to support the sport.

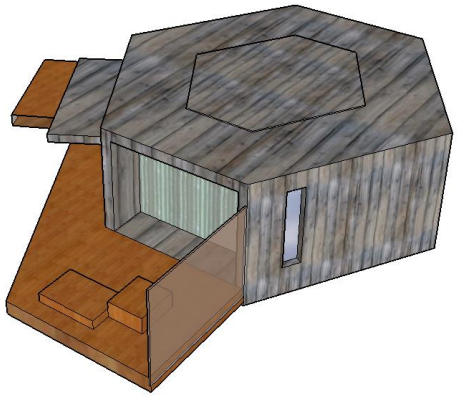

Figure 4 – Perspective basic cell / ADP-WAVESPORTS

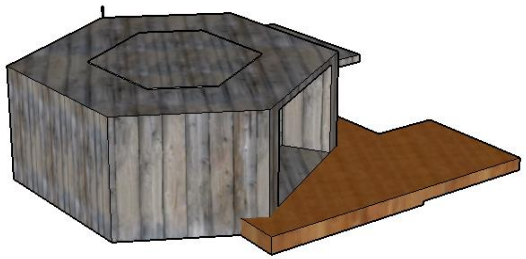

Figure 5 – Perspective basic cell

Figure 6 – Perspective basic cell

The remaining cells will vocations according to the needs of consumers of wave sports, in the logic perspective of providing excellent services.

With a ecological and sustainable development approach, this architectural prototype shall benefit the use to any type of architecture that employs materials and features of the environment in which the building itself is constructed integrated sustainable materials enhancing durability and low maintenance costs. Moreover, energy efficient systems both active and passive will be used, such as photovoltaic panels (with the transformation of solar energy into technical or electrical energy) or bioclimatic architecture (use of energy for heat-

ing by means of construction strategies).

Accordingly, special attention shall be given to the reuse of storm water, water conveyance and treatment and wastewater effluents (Ecoflo system or equivalent) aiming for a better technical solution in their reuse, in full symbiosis with the environment.

Given its modular structure, it may, if necessary, rise from the floor (poles) and/or be removed from the site (without impact on the environment and reduced costs). The interior courtyard provides several transformations (positive/negative, closed/open), creating a space for leisure, a protected winter garden, fully enclosed if appropriate, taking advantage of an intimate outdoor space. Depending on the location it may also have a green garden to better integrate into the local landscape.

Regarding literature review, concepts were analyzed and criticized, reference was made to architecture in the context of land management planning. The conceptualization was associated with the development of sports with waves/surf, understood as consumer goods. Second, attention focused on the legal framework regulating the areas under study justifying tourism practices at the interface with land development, tourism and sport. We also sought a characterization of the evolution of surf, defining and critically relating events by analyzing planning strategies and the overall vision of ADP-WAVESPORTS.

In this context and according to Nunes (2010), the "state of the art" comprehended the critical transcription of several authors on the topic, as well as a commented conceptual synthesis that would lead to the starting assumptions of ADP-WAVESPORTS.

Methodology

As far as methodology is concerned, the analysis model used is based on the intersection of several methodological pathways. It integrates document analysis of scientific production in the study area, normative frameworks, official documents available about sports tourism, surf and architecture, and statistical aggregates available in diverse and credible sources. Note that the model, because of its geometry, shape and composition can be adjustable to changing needs of the sport in general.

Results

The expected results of this research are that future developers, in-

vestors, residents and all those who direct or indirectly wish to work on waves sports, especially surf, succeed to improve their perceptions about the relation between architecture and waves sports. This acknowledgement is expected to improve land management, cost savings and landscaping. Furthermore, adequacy of form and function was designed from a social, formal, spatial and economic point of view to improve quality of life, health and welfare of the general population, all those who in one way or another are related to physical activity and sport. It is expected that ADP-WAVESPORTS results in a differentiated, marketable product in Portugal and abroad.

Conclusions

Therefore, we find that ADP-WAVESPORTS can be assumed as an innovative architecture prototype adaptable to different demands and contexts of practice and consumption, integrated with land management instruments in force, respecting the needs of visitors and tourists of destinations structured around the specific dynamics wave's sports/surf. It is based on the characteristics of these sports: competition and practice, informal practice, comfort, training, surfboard manufacturing and leisure. Basically, it is expected to contribute to the linkage of wave's sports with human development.

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